SPECIFICATIONS

TITLE OF THE INVENTION

SYSTEM FOR PROCESSING MATERIAL, OUTPUT UNIT FOR INFORMATION

ON PROCESSING MATERIAL AND OUTPUT METHOD FOR INFORMATION ON

5   PROCESSING MATERIAL

BACKGROUND OF THE INVENTION AND RELATED ART STATEMENT

This invention relates to a system for making a

final commodity by processing a variety of materials.

10   Conventionally, in an industry of making a final

commodity by processing a plurality of materials to a

certain component unnecessary materials or processing

facilities are likely to be generated during a process of

procuring materials or of processing the materials. An

15   industry of manufacturing furniture by making use of wooden-

ware will be explained as an example. In a forest where

trees are afforested thinned-out woods are cut to thin out

the forest so as to make an interval of the trees uniform

and the deforested thinned-out woods are likely to be left

20   as they are. As a measure to deal with this situation, some

of forestry associations in a city, town or village having

mountains or forests make a commodity such as "a log stake"

by making use of the thinned-out woods. However, the

commodity such as "a log stake" does not meet a demander's

25   requirement. This leads to a present situation where

thinned-out woods are not utilized as a real worthy

commodity.

It can be considered as one of the causes that there

is no enterprises which produces a commodity with a through an operation from obtaining materials to manufacturing final commodities or there is no enterprises nor information network that grasps all of demander's requirements

5 accurately. More specifically, an enterprise which supplies materials does not grasp information on what kind of commodities the materials can be utilized to or whether the materials can be processed into the commodities that the demander desires or not although it keeps a variety of

10 materials such as thinned-out woods. In addition, an enterprise which manufacturers final commodities by processing supplied materials does not grasp information on how and where to get the material which the demander desires.

Not only in the industry of wood commodities but

15 also in industries of supplying a variety of materials or industries where producers and manufacturers are independent there exist materials of no use or processing facilities of less effective in operation.

In view of the above problems, the present claimed

20 invention intends to provide a system for producing commodities that can meet a demander's requirement with attempting effective use of material having conventionally less demand or processing facilities which have not been operated efficiently.

25

OBJECT AND SUMMARY OF THE INVENTION

In order to solve the above problems the present claimed invention is so arranged that a material supplier

registers information on material which the material
supplier can supply and the processor registers information
on processing which the processor can supply. In addition, a
person who intends to purchase a specified commodity inputs
5   desired information on the material or the processing for
the commodity and the information on the material and the
processing which corresponds to the desired information is
output.

　　　As mentioned above, the material supplier and the
10   processor register what they can supply and the demander can
select the desired material and processing from the
registered information. Then, for example, if a demander
selects material of less utility value such as thinned-out
woods, the materials or processing facilities can be
15   utilized effectively to meet a demander's requirement.

　　　However, a trouble might happen that it becomes
impossible to assemble a commodity with using the material
in a final step to manufacture the commodity in case the
material for the commodity is selected by the demander. As a
20   result, it is preferable that a manufacturer presents a
required specification for components of the commodity and a
material supplier or a processor registers information on
the material or the processing for the specification, and
then a demander selects the material or the processing
25   within the range of the specification. In accordance with
the arrangement, the manufacturer can not only make the
commodity smoothly but also improve quality of the commodity.

　　　In addition, since thinned-out woods which have

conventionally less utility value are registered and information on the thinned-out woods is output, it becomes possible to effectively utilize the thinned-out woods which have a true demand.

5 **BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a general diagram of a system showing an embodiment of the present claimed invention.

Fig. 2 is a functional block diagram of the system in the embodiment.

10 Fig. 3 is a memory map of a server computer in the embodiment.

Fig. 4 is an overall flow chart of the system in the embodiment.

Fig. 5 is a screen flow chart of a client computer

15 of a demander in the embodiment.

Fig. 6 is the screen flow chart of the client computer of the demander in the embodiment.

DETAILED DESCRIPTION OF THE PRREFERRED EMBODIMENTS

20 The invention will be described in detail with reference to the embodiments thereof shown in the accompanying drawings.

Fig. 1 is a general diagram of a system constituting a system of the invention and comprises a plurality of

25 client computers 1 through 4 connectably arranged through a network $\underline{N}$ such as the Internet and a server computer 5. The client computers in this system comprise a client computer 1 operated by a furniture manufacturer which assembles a final

commodity, a client computer 2 operated by a forest
association which supplies materials such as thinned-out
woods, a client computer 3 operated by a processor of the
materials and a client computer 4 operated by mainly a

5 purchaser of furniture, and further comprises the server
computer 5 which stores information input by the client
computers 1 though 4. The server computer 5 may also serve
as a function of these client computers 1 though 4, however,
in this embodiment it functions independently.

10 The client computer 1 provided on a side of the
furniture manufacturer comprises an input means 10
comprising a keyboard with which a required specification
for a commodity to be manufactured, material or processing
is input by the furniture manufacturer, a body 11 to process

15 data and a display means 12 comprising a display to display
a predetermined output and is provided at a place where the
furniture manufacturer or a person concerned can operate.
The client computer 2 provided on a side of the supplier of
the thinned-out woods comprises an input means 20 comprising

20 a keyboard like the input means 10, a body 21 and a display
means 22 comprising a display and is so arranged that
information on materials such as thinned-out woods can be
input based on the required specification presented by the
furniture manufacturer. The client computer 3 provided on a

25 side of the processor comprises an input means 30 such as a
keyboard, a body 31 and a display means 32 such as a display
and is so arranged that information on the processing such
as lumbering or painting can be input based on the required

specification presented by the furniture manufacturer. The

client computer 4 provided on a side of a demander also

comprises an input means 40 comprising a keyboard, a body 41

and a display means 42 comprising a display and is so made

5   that a commodity to be sold which is presented by the

furniture manufacturer can be searched and that a desired

material or method of processing for the commodity can be

selected or searched as well. The server computer 5 is

provided to be connectable with these client computers 1

10   through 4 and comprises an input means 50, a body 51 and a

display means 52 like the client computers 1 through 4. The

server computer 5 stores information on the commodity, the

material or the processing which is input with the client

computers 1 through 4 and is so made that the demander can

15   select or search the information.

The Fig. 2 shows a functional block of thus arranged

system. CPUs (11a, 21a, 31a, 41a, 51a) provided on the

client computers 1 though 4 and the server computer 5 are to

control each of the client computers 1 through 4 and the

20   server computer 5 having the CPUs (11a, 21a, 31a, 41a, 51a)

and so arranged to be operated by a program stored on each

of memory means (11b, 21b, 31b, 41b, 51b). Each of the input

means (10, 20, 30, 40, 50) is so arranged that the input

data is received from an operator like a keyboard or a mouse,

25   while each of the display means (12, 22, 32, 42, 52) is so

arranged to display information which is input by the input

means (10, 20, 30, 40, 50) or which is sent or received

through the network N.

The memory means (11b, 21, 31, 41, 51b) stores a program for the client computers 1 through 4 and the server computer 5 and also stores information which corresponds to environment where the client computers 1 through 4 are

5   arranged. For example, the memory means 51b of the server computer 5 stores, as shown in a memory map of Fig. 3, the information on the commodity or the required specification concerning the material or the processing presented by the furniture manufacturer, the information on the thinned-out

10   woods registered by the material supplier or the information on the processing registered by the processor.

More specifically, the memory means 51b of the server computer 5 is provided with a memory area 6 for commodity information input by the client computer 1 of the

15   furniture manufacturer, a memory area 7 for material information input by the client computer 2 of the thinned-out wood supplier and a memory area 8 for processing information input by the client computer 3 of the processor. The memory area 6 for commodity information has a memory

20   area for a commodity name 60 such as a desk or a chair which is roughly classified for the convenience of a furniture manufacturer and a series commodity name 61 such as a school desk or an office desk and also stores a required specification 63 concerning materials which constitute the

25   commodity or processing of the commodity corresponding to a stock number 62 of the series commodity name 61. Information on a production place, a species, a size, a shape or a number of thinned-out woods is input concerning the material

and information on sawing, seasoning, compiling, a secondary
processing or painting is input concerning the processing as
the required specification 63. An image 64 of a finished
commodity corresponding to the material or the processing

5 can be stored for each stock number and can be output on the
client computer 4.

The memory area 7 for material information stores
main information 70 on a name, address or telephone number
of the material supplier and material information 71 which

10 is input by the material supplier from the client computer 2
through the network N. As the material information 71 stored
is, concretely a production place, a species, a size, a
shape or a number of the thinned-out woods in addition to an
appointed date of delivery or a price thereof which is input

15 corresponding to the required specification of the furniture
manufacturer.

The memory area 8 for processing information stores
main information 80 on a name, address or telephone number
of the material supplier and processing information 81 which

20 is input by the processor from the client computer 3 through
the network N. The processing information 81 is input
corresponding to the required specification of the furniture
manufacturer. More concretely, as the processing information
81 stored is information on a size capable of or capacity of

25 sawing, a size capable of seasoning or time to season, a
size capable of compiling or a name of adhesive used, use or
non-use of an NC router as a secondary processing or a
maximum size capable of processing, a kind or a method of

painting, time of delivery or a price.

Communicating means (11c, 21c, 31c, 41c, 51c) is so arranged to communicate with the other client computer or the server computer 5 through the network $\underline{N}$ and comprises a

5 modem or the like.

In thus arranged functional block, the CPU 21a which controls the input means 20 and the communicating means 21c of the client computer 2 provided on the side of the material supplier and the CPU 51a which controls the

10 communicating means 51c of the server computer 5 form a means for receiving material information, and the CPU 31a which controls the input means 30 and the communicating means 31c of the client computer 3 provided on the side of the processor and the CPU 51a which controls the

15 communicating means 51c of the server computer 5 form a means for receiving processing information. The CPU 11a which controls the input means 10 and the communicating means 11c of the client computer 1 provided on the side of the furniture manufacturer and the CPU 51a which controls

20 the communicating means 51c of the server computer 5 form a means for receiving requested information. The CPU 51a which controls the memory means 51b and the communicating means 51c of the server computer 5 form an output means.

Next explained will be a flow in which a furniture

25 manufacturer, a material supplier or a processor inputs a predetermined data by the use of thus arranged system and a flow in which the demander searches material or processing method for a desired commodity based on the input

information.

First, in case that the furniture manufacturer requests a specification for a commodity to be sold or the material supplier, the furniture manufacturer connects the

5   client computer 1 of the furniture manufacturer with the server computer 5, gets (ST1) a registered screen information on the commodity to be sold and inputs a commodity name, a series commodity name, a size or a stock number as a basic item based on the registered screen

10   information. As a requested specification of components constituting the commodity, material request information or processing request information is input (ST2) so as to register in the memory means 51 of the server computer 5, which enables the thinned-out wood supplier to make

15   registration (ST3). If the client computer 2 of the side of the thinned-out wood supplier is connected with the server computer 5 after operation of registration, information on the registered screen for supplying material is sent from the server computer 5 to the client computer 2 and a

20   required specification 63 registered in the memory means 51b of the server computer 5 is also sent (ST4). Based on the information thus received, the thinned-out wood supplier inputs and sends (ST5) material information such as a species, a size, a number or a price of the thinned-out

25   woods which the supplier holds, and main information such as an address or a telephone number of the supplier so as to store (ST7) the material information and the main information in the memory area 7 for material information of

the server computer 5. Similarly, if the client computer 3 of the side of the processor is connected with the server computer 5, information on the registered screen for processing is sent from the server computer 5 to the client

5   computer 3 and a required specification 63 registered in the memory means 51b of the server computer 5 is also sent (ST4). Based on the information thus received, the processor inputs and sends (ST6) processing information such as sawing, seasoning, compiling, a secondary processing or painting and

10   main information such as an address or a telephone number so as to store (ST7) the processing information and the main information in the memory area 8 for processing information of the server computer 5.

In case the demander searches a desired commodity by

15   accessing the server computer 5 wherein registration has been completed, the demander inputs desired information on the commodity, material or processing (ST8) by the use of an input screen provided by the server computer 5.

More specifically, when the demander accesses the

20   server computer 5 and inputs a predetermined URL, information on an initial screen is sent from the server computer 5 and a screen to quote or to make registration is displayed (ST8a) on a display of the client computer 4 of the demander, as shown in Fig. 5 and Fig. 6. Then if the

25   screen to quote is selected, a commodity name as a rough classification of the basic item registered by the furniture manufacturer is read out from a memory area 60 for a commodity name of the server computer 5 and the commodity

names are displayed on a display of the client computer 4 so
as to enable selection of the commodity name (ST8b). If one
of the commodities, for example, a desk is selected from
among the displayed commodity names, a series commodity name

5   corresponding to the desk is read out from a memory area 61
for a series commodity name of the server computer 5 and
displayed so as to enable selection of the series commodity
name (ST8c). Corresponding to the selection of the series
commodity name, a stock number corresponding to the series

10   commodity name is read out from a memory area 63 for
information on the stock numbers of the server computer 5
and is displayed so as to enable selection of the stock
number (ST8d). Registration of information on the desired
commodity is completed with the selection of the stock

15   numbers.

Next, an input screen concerning preference for a
production place of the material is provided in a display of
the client computer 4 in order to allow the demander to
input his or her preference for the material to the selected

20   commodity and an input concerning a desired production place
is allowed (ST8e). The desired production place can be input
directly by the use of the keyboard as well as it scan be
selected from information on the production place previously
registered in the memory area 63 for specification

25   information of the server computer 5. In case a desired
production place is input, an input screen concerning a
desired species of wood is displayed on the client computer
4 in order to allow the demander to input his or her

preference for a species of wood (ST8f). In this case also,
the desired species of wood can be input directly by the use
of the keyboard as well as can be selected from information
on the species of wood previously registered in the memory

5   area 63 for specification information of the server computer
5.

When desired information on the material has been
selected and input, desired information on surface finish
and other desired information on processing can be input

10   (ST8g) to allow an input of a processing method or the like
desired by the demander corresponding to the specification
of the commodity. Finally when an input of a number to order
is received (ST8h), the memory area 6 for material
information or the memory area 7 for processing information

15   of the server computer 5 is searched based on an input
condition and names, addresses or telephone numbers of the
registered material supplier or the processor are read out
from the memory areas 70, 80 for main information and output
to the client computer 4 (ST8i, ST9). The image 64 of the

20   finished commodity stored in the memory area 6 for commodity
information of the server computer 5 is output and shown on
the display of the client computer 4 so as to image an
appearance of the finished commodity. In addition, as a
reply to the screen to quote, an estimated price is

25   displayed according to the information on the selected
material or the processing. Further, a general appointed
date of delivery is output and shown in a display of the
client computer 5 based on the information on the appointed

date of delivery stored in the memory area 7 for material

information and the memory area 8 for processing information

according to the selected material or the processing method.

In accordance with the arrangement of the embodiment,

5 since the material supplier registers the information on the

material which the material supplier can provide and the

processor registers the information on the range of the

service of processing which the processor can provide and

the demander can select the material or the processing

10 method, the material supplier or the processor can provide

material or a processing method which meets the demander's

needs without a necessity of knowing the demander's needs.

In addition, in this embodiment since thinned-out woods with

low demand are used as the material and the demander selects

15 the material from among thus registered thinned-out woods,

it is possible to utilize the thinned-out woods which meet a

demand.

In the system wherein material or a method of

processing can be selected arbitrary the manufacturer making

20 a final commodity discloses a required specification

concerning material or a method of processing. This makes it

possible for the furniture manufacturer to be free from

inconvenience in materials or processing during a process of

making furniture. In addition, it becomes smooth for the

25 material supplier or the processor to register the

information because a range of the information to be

disclosed by the material supplier or the processor becomes

clear.

This invention is not limited to the above-mentioned embodiment and may be variously modified. More specifically, in the embodiment of the invention both of the species of the thinned-out wood and the processor can be selected,

5 however, only the species of the thinned-out wood may be selected. In the above embodiment the thinned-out wood is explained as an example of the material, however, the material is not limited to this. The above embodiment can be applied to any industries as far as material supply and

10 processing business are independent, for example, to an industry to make fish sausage in which each of the businesses of supplying fish and processing fish is independent.

In this embodiment the server computer 5 is explained

15 as a body separated from the client computers 1 through 4, however, the client computer 1 of the furniture manufacturer and the server computer 5 may be integrated. Further, each of the client computers 1 through 4 may be integrated with other client computer, for example, the client computer 1 of

20 the furniture manufacturer may also serve as the client computer 4 of the demander. In this case, for example, when the furniture manufacturer supplies a local self-governing body with a large number of conference desks, the furniture manufacturer can select a material supplier or a processor

25 locating in an area of the local self-governing body, thereby to contribute to promotion for the area of the local self-governing body.

In addition, in this embodiment the input information

on a desired commodity, material or processing is received
and searched in the server computer 5 and the conformed
result information is output, however, an embodied form is
not limited to this. As another way, all of the information

5   restored in the memory area 6 for commodity information, the
memory area 7 for material information and the memory area 8
for processing information may be shown in the screen of the
client computer 4 so that the desired information can be
selected and input from among the information shown in the

10   screen. Especially in a case wherein information on the
material or processing registered in the server computer 5
is small, it can reduce time to input required to search the
information or time to search the information.

As mentioned above, in the present claimed invention

15   the material supplier registers information on the material
that the supplier can supply and the processor registers
information on the processing that the processor can provide.
Then a person who intends to purchase a specific commodity
inputs desired information on the material or the processing

20   for the commodity and information on the material or the
processing is output based on the desired information. As a
result, the demander can select the material or the
processing, thereby to manufacturer a commodity suitable for
the demander's preference.

25   Further, since the required specification for
components of the commodity is disclosed in advance and
information on the material or the processing corresponding
to the specification is registered in registration of

information on the material or the processing, the manufacturer that makes a final commodity can make the commodity smoothly and improve the quality of the commodity.

In addition, since thinned-out woods which have
5   conventionally less utility value are registered, information that the demander desires for the thinned-out woods is received and the information on the thinned-out woods is output, it becomes possible to effectively utilize the thinned-out woods having a true demand.

10